

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for depositing, on a substrate, a coating comprising a semiconductor material comprising a metal oxide, wherein the metal oxide initiates, under radiation of a suitable wavelength, one or more radical reactions causing oxidation of organic substances and thereby said coating has photocatalytic properties, the process comprising:

depositing the coating having photocatalytic properties by chemical vapor deposition, wherein the reaction and the deposition are carried out at an atmospheric pressure and the deposition is carried out at a temperature below 300°C under an atmosphere comprising a gas mixture that comprises at least one of an organometallic precursor and a metal halide of said metal oxide, the deposition being enhanced by a plasma source, wherein the coating having photocatalytic properties is deposited on the substrate outside a plasma discharge.

Claim 2 (Previously Presented): The process according to claim 1, wherein at least one carrier gas or a mixture of carrier gases is selected from the group consisting of air, nitrogen, helium, and argon,

and the carrier gas or the mixture of carrier gases is injected parallel to the gas mixture comprising the precursor.

Claim 3 (Previously Presented): The process according to claim 1, wherein the gas mixture comprises an oxidizing agent or a mixture of oxidizing agents.

Claim 4 (Previously Presented): The process according to claim 1, wherein the gas mixture comprises a reducing agent or a mixture of reducing agents.

Claims 5-6 (Canceled).

Claim 7 (Previously Presented): The process according to claim 1, wherein at least one sublayer is deposited, prior to the deposition of the coating having photocatalytic properties, thereby to impart another functionality to said coating having photocatalytic properties and/or to reinforce said properties of said coating.

Claim 8 (Currently Amended): The process according to claim 1, wherein the gas mixture comprises at least one of the organometallic precursor and a metal halide of said metal oxide that is at least an amorphous or partially crystallized oxide ~~one other type of mineral material~~.

Claim 9 (Previously Presented): The process according to claim 1, wherein the coating having photocatalytic properties is deposited on the substrate within an actual plasma discharge.

Claims 10-28 (Canceled).

Claim 29 (Previously Presented): The process according to claim 1, wherein the metal oxide is titanium oxide.

Claims 30-31 (Canceled).